Control of Noxious Weed *Cenchrus biflorus*—Effect of Lablab as a Cover Crop

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Key words: noxious weed, cenchrus biflorus, control, lablab

Introduction *Cenchrus biflorus* Roxb. (Burgrass) is an annual grass, which is rapidly spreading in western and central Botswana. It occurs in neighboring countries such as South Africa, Namibia, and Swaziland (Russell *et al*. 1990). It is abundant in the African Sahel in low rainfall woodland savanna where it is utilized for grazing (Skerman and Riveros. 1990). Heavy infestations of *C. biflorus* are in pasture and range, but the grass is now found growing in cultivated areas as well. The grass is a problem weed because of its objectionable burs, which adhere to animal skin, cloth, shoes, and machinery. It is through attachment to animal skin and cloth that gives the grass a highly effective means of spreading. The burs are harmful to livestock and will cause ulcers in the mouths of grazing animals. Control of this weed therefore is important to agricultural production. This paper reports the effects of using Lablab as a cover crop to control *Cenchrus* biflorus.

Methodology The experiment was conducted in an area (200km NE Gaborone) receiving 450-500mm rainfall on sandy loam soils, and heavily infested with *C. biflorus*. Two treatments (with and without Lablab) were compared. The experimental layout was a randomized complete block design with four replications. Plots measured 8 x 2.5 m. inter-plot distance was 1.5 m and between blocks 2.5 m. Lablab was planted at a spacing of 75 x 50 cm giving a population of 26,667 plants per ha. Plant counts, number of burs and plant height for *Cenchrus biflorus* and plant cover for Lablab, were recorded every three weeks after planting till 18 weeks later.

Results and Discussion Once the lablab canopy developed 12 weeks after planting (Figure 1) it effectively suppressed the number of plants of the noxious weed (Figure 2). Subsequent recruitment of weed seedlings is also reduced through reduced number of burs per plant (Table 1). Lablab was observed in Nigeria to have 100% control of weeds including Congo grass (Ekeleme *et al*. 2003). However plant height is not affected by lablab.

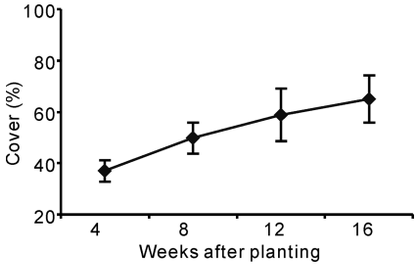

Figure 1 *Ground of lablab in plots previously dominated by* C. biflorus weed in Botswana.

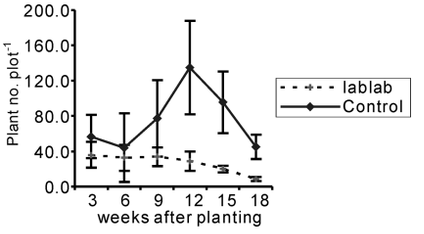

Figure 2 *Effect of lablab on* C. biflorus *plant population over a period of* 18 *weeks in Botswana.*

Table 1 *Mean number of burs of C. biflorus under lablab and control plots in Botswana.*

Treatment	No. of Burs
Lablab	748[b]
Control	1230[a]

Conclusion Lablab can be used to control noxious weeds *Cenchrus biflorus* in grazing areas. Using Lablab has added advantage because it is a high protein feed.

Reference

Ekeleme, F., Akobundu Okezie I., Fadayomi Omosuyi, R., Chikoye, D., and Abayomi Yekeen, A. (2003) Characterization of legume cover crops for weed suppression in the moist savanna of Nigeria. *Weed Technology* 17 (1) 1-13.